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10/781,529	02/17/2004	Stuart W. Daniel	2003-0689.01	2435

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EXAMINER	
DENG, ANNA CHEN	
ART UNIT	**PAPER NUMBER**
2191	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/781,529	DANIEL ET AL.	
	Examiner	Art Unit	
	ANNA DENG	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 April 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to amendment filed on 4/28/2009.

2. Claims 1-4 are pending.

Response to Amendment

3. The rejection under 35 U.S.C. 112, second paragraph to claims 1-14 is withdrawn in view of applicant's amendment.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-2, 6-7, and 11-14 are rejected under 35 U.S.C. 102 (e) as being anticipated by Rao, USPUB 2004/0093592 A1 (hereinafter Rao).

Per Claim 1 (Currently Amended):

Rao discloses:

A method of updating firmware of an imaging device having a first communication port connectable with a computer or network for receiving

information and a second communication port for reading information from a portable memory source (Rao, FIG. 1, [0018], the update agent 125 to update the firmware/software 131 in the electronic device 109 using information store in SIM card 123. The electronic device 109 of FIG. 1 is communicatively coupled by communication link 113 (first communication port) to a distribution network 107 that provides access to update packages; also, [0020] … a SIM card 123 that provides an update package reference storage area. The SIM card 123 interfaces to the electronic device 109 through interface 111 (second communication port)), **comprising:**

accepting a connection from the portable memory source at the second communication port of the imaging device (Rao, [0020], The SIM card 123 interfaces to the electronic device 109 through interface 111 (accepting a connection); also, [0023], the electronic device 109 may determine if one SIM card 123 has been removed and a different SIM 123 introduced into (connection) the SIM card interface 111 of the electronic device 109);

accessing files stored on the portable memory source (Rao, FIG.2, [0017], FIG. 2 is a flow chart illustrating an exemplary method of operating an electronic device, such as the electronic device of FIG. 1, when it accesses the update package reference storage area (files) in a SIM card); **and**

updating the firmware of the imaging device with at least one of the files stored on the portable memory source (Rao,[0008], the user removable electronic memory device may comprise information related to the updating of the at least a portion of the at least one of firmware and software. [0009], In an embodiment of the

present invention, the information related to the updating of the at least one firmware and software may comprise at least one of a cyclic redundancy check (CRC), a location in a file system, a memory address, a status flag, and new firmware (the update file itself)…The user removable electronic memory device may comprise one of a subscriber identity module (SIM) card, a smart card, an integrated circuit (IC) card, a removable memory card, and a removable memory module. [0022], the update agent 125 in an embodiment of the present invention (e.g., the electronic device 109) may access data or code stored in the SIM card 123, and may use the data as needed in the update process, also see FIG. 2, (emphases added)).

Per Claim 2:

Rao discloses:

further comprising recognizing the portable memory source upon connection with the second communication port of the imaging device (Rao, for example, [0023], the electronic device 109 may determine (recognize) if one SIM card 123 has been removed and a different SIM 123 introduced into the SIM card interface 111 of the electronic device 109).

Per Claim 6:

Rao discloses:

wherein said files are all files that can be read by the imaging device (Rao, [0023], if the update agent 125 determines from the metadata information in the update

package reference storage area 127 indicates that an update of the firmware/software is available (can be read), ... the update agent 125 in an embodiment of the present invention (e.g., the electronic device 109) may access (read) data or code stored in the SIM card 123, and may use the data as needed in the update process).

Per Claim 7:

Rao discloses:

wherein said files are files containing only firmware updates (Rao, FIG. 1, [0008], the user removable electronic memory device may comprise information related to the updating of the at least a portion of the at least one of firmware and software. [0009], In an embodiment of the present invention, the information related to the updating of the at least one firmware and software may comprise at least one of a cyclic redundancy check (CRC), a location in a file system, a memory address, a status flag, and **new firmware** (files containing only firmware updates). [0020], the update package reference storage area 127 of SIM card 123 may, for example, comprise a 16-byte space where metadata information, associated with an update package downloaded to the electronic device 109, is stored (emphases added)).

Per Claim 11:

Rao discloses:

further comprising verifying the contents of the selected file prior to updating the firmware of the imaging device (Rao, [0011], The information from the

user removable electronic memory device may comprise at least one of a signature, … The signature may comprise a cyclic redundancy check (CRC). The information from the user removable electronic memory device may comprise an indication of availability of an update for the at least a portion of the at least one of a firmware and software, and may be used to verify or authenticate an update of the at least a portion of the at least one of firmware and software, (emphases added)).

Per Claim 12:

Rao discloses:

further comprising selecting at least one of the files on the portable memory device to update the firmware of the imaging device (Rao, [0008], the user removable electronic memory device may comprise information related to the updating of the at least a portion of the at least one of firmware and software. The at least one firmware component may comprise an update agent for updating the at least a portion of the at least one of firmware and software, and the update agent may use (select) at least one of an update package and the information related to the updating of the at least one of firmware and software).

Per Claim 13:

Rao discloses:

wherein said connection between the portable memory device and the second communication port of the imaging device is a direct connection (Rao,

[0020], Although a SIM card is a specific form of user removable electronic memory device, the present invention applies equally to other forms of user removable electronic memory devices such as, for example, smart cards (sometimes referred to as "integrated circuit cards" or IC cards"), removable memory cards, removable memory modules, and the like. Therefore, although this application refers to a SI< card, the present invention is not limited in this regard, as other forms of removable electronic memory device are contemplated and applicable).

Per Claim 14:

Rao discloses:

wherein said connection between the portable memory device and the second communication port of the imaging device is an indirect connection (Rao, [0020], Although a SIM card is a specific form of user removable electronic memory device, the present invention applies equally to other forms of user removable electronic memory devices such as, for example, smart cards (sometimes referred to as "integrated circuit cards" or IC cards"), removable memory cards, removable memory modules, and the like. Therefore, although this application refers to a SI< card, the present invention is not limited in this regard, as other forms of removable electronic memory device are contemplated and applicable).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rao, USPUB 2004/0093592 A1 (hereinafter Rao), in view of Rothman et al. USPN 7,222,339 (hereinafter Rothman).

Per Claim 3:

The rejection of claim 1 is incorporated, Rao teaches the portable memory source with the second communication port of the imaging device (Rao, [0020], The SIM card 123 interfaces to the electronic device 109 through interface 111), Rao does not explicitly teach generating an interruption signal upon connection of the portable memory source with the second communication port of the imaging device. However, Rothman teaches generating an interruption signal upon connection of the portable memory source with the second communication port of the imaging device (Rothman, col. 10, lines 26-34, SMM handlers for handling corresponding firmware updates and OOB communications…The handlers are a type of interrupt handler, and are invoked in response to a system management interrupt).

It would have been obvious to one having ordinary skill in the computer art at the time of the invention was made to modify the method disclosed by Rao to include generating an interruption signal upon connection of the portable memory source with

the second communication port of the imaging device using the teaching of Rothman. The modification would be obvious because one of ordinary skill in the art would be motivated to provide handlers that are a type of interrupt handler, and are invoked in response to a system management interrupt (Rothman, col. 10, lines 31-33).

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rao, USPUB 2004/0093592 A1 (hereinafter Rao), in view of Fichtner et al. USPN 6,360,362 B1 (hereinafter Fichtner).

Per Claim 4:

The rejection of claim 1 is incorporated, Rao teaches connection of the portable memory source at the second communication port of the imaging device (Rao, [0020], The SIM card 123 interfaces to the electronic device 109 through interface 111), Rao does not explicitly teach periodically polling for connection of the portable memory source at the second communication port of the imaging device. However, Fichtner teaches periodically polling for connection of the portable memory source at the second communication port of the imaging device (Fichtner, FIGS. 2-4, col. 3, lines 18-36, the operating system 40 detects whether a camera 10 is attached to the system by polling the port 26 … Alternatively, host application software 60 can perform the polling of the port 26 ... also, see col. 4, lines 36-39, and 56-64).

It would have been obvious to one having ordinary skill in the computer art at the time of the invention was made to modify the method disclosed by Rao to include

periodically polling for connection of the portable memory source at the second communication port of the imaging device using the teaching of Fichtner. The modification would be obvious because one of ordinary skill in the art would be motivated to update firmware between an imaging device and a host system that is performed automatically upon connecting the imaging device to the host system (Fichtner, col. 2, lines 26-29).

9. Claims 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao, USPUB 2004/0093592 A1 (hereinafter Rao), in view of Parry et al. USPUB 2004/0061728 A1 (hereinafter Parry).

Per Claim 5:

The rejection of claim 1 is incorporated, and further, Rao does not explicitly teach searching the portable memory source for files. However, Parry teaches searching the portable memory source for files (Parry, [0065], searches a plurality of configuration data updates using the received usage profile).

It would have been obvious to one having ordinary skill in the computer art at the time of the invention was made to modify the method disclosed by Rao to include searching the portable memory source for files using the teaching of Parry. The modification would be obvious because one of ordinary skill in the art would be motivated to receive updated configuration data responsive to the communicating the usage data, subsequently configuring the image forming device to form the hard

images upon the media according to the updated configuration data (Parry, [0016]).

Per Claim 8:

The rejection of claim 5 is incorporated, and Parry further teaches automatically selecting a file to update firmware of the imaging device (Parry, [0043], selects the appropriate updated configuration data based upon and tailored to the compiled usage data).

10. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao, USPUB 2004/0093592 A1 (hereinafter Rao), in view of Parry et al. USPUB 2004/0061728 A1 (hereinafter Parry), and further in view of Kraft USPN 6,535,229 B1 (hereinafter Kraft).

Per Claim 9:

The rejection of claim 5 is incorporated, and further, the combination of Rao and Parry does not explicitly teach presenting the files found in the search to a user. However, Kraft teaches presenting the files found in the search to a user (Kraft, col. 3, lines 53-56, A GUI control according to the present invention presents a set of selectable options to a user and allows the user to select items from the set of options).

It would have been obvious to one having ordinary skill in the computer art at the time of the invention was made to modify the method disclosed by Rao and Parry to include presenting the files found in the search to a user using the teaching of Kraft. The

modification would be obvious because one of ordinary skill in the art would be motivated to provide a new type of item list GUI control that is both easy to use and design, and control the self-consistency of the items selected in the list (Kraft, col. 3, lines 51-53).

Per Claim 10:

The rejection of claim 9 is incorporated, Parry teaches and further, said at least one selection corresponding to at least one of the files to update firmware of the imaging device (Parry, [0043], selects the appropriate updated configuration data based upon and tailored to the compiled usage data). The combination of Rao and Parry does not explicitly teaches receiving at least one selection from a user. However, Kraft teaches receiving at least one selection from a user (Kraft, col. 8, lines 1-2, receiving input specifying a user-specified item in the displayed set of selectable items).

Response to Arguments

11. Applicant's arguments filed 4/28/2009 have been fully considered but they are not persuasive.

Applicants argued:

Thus, unlike Applicants' claimed invention where the actual firmware update file is stored in the portable memory device, in *Rao* only metadata that provides an address

and/or reference to the update package (i.e., data used in the update process, not the update file itself) is present on the SIM card.

Examiner response:

Rao does disclose limitation "updating the stored firmware of the imaging device with at least one of the files stored on the portable memory source", *Rao*, [0008], the user removable electronic memory device may comprise information related to the updating of the at least a portion of the at least one of firmware and software. [0009], In an embodiment of the present invention, the information related to the updating of the at least one firmware and software may comprise at least one of a cyclic redundancy check (CRC), a location in a file system, a memory address, a status flag, and new firmware (the update file itself)…The user removable electronic memory device may comprise one of a subscriber identity module (SIM) card, a smart card, an integrated circuit (IC) card, a removable memory card, and a removable memory module. [0022], the update agent 125 in an embodiment of the present invention (e.g., the electronic device 109) may access data or code stored in the SIM card 123, and may use the data as needed in the update process, (emphases added).

Rao clearly discloses the user removable electronic memory comprises information related to the updating of the firmware such that, the information related to the updating of firmware includes location in file system, memory address, and **new firmware** (update file itself), and the update agent access data and code (update file itself) for the update (process). Thus, *Rao* teaches all the limitations in pending claim 1.

Applicants argued:

Additionally, *Rao* also fails to disclose or suggest that the electronic device that is being updated is an imaging device as in the claimed invention.

Examiner response:

Rao teaches an updatable electronic device comprising a memory having at least one of firmware and software, at least one firmware component, and an interface for communicatively coupling to a user removable electronic memory device (see Rao, [0008]) that read on imaging device in the pending claims.

Applicants argued:

Rao fails to teach that the metadata information (files stored in the portable memory device) contains the firmware update as in the claimed invention, and Applicants respectfully submit that claim 7 is allowable for this additional reason.

Examiner response:

Rao teaches files containing firmware updates, see [0009], In an embodiment of the present invention, the information related to the updating of the at least one firmware and software may comprise at least one of a cyclic redundancy check (CRC), a location in a file system, a memory address, a status flag, and **new firmware** (the update file), (emphases added).

Applicants argued:

Rejection of claims 3-5 and 8-10 under 35 U.S. 103 (a) as discussed above, with respect to element in independent claim 1, *Rao* fails to discloses or suggest the claimed the claimed invention, and *Rothman et al.*, *Fichtner et al.*, *Parry et al.*, and *Kraft* fail to cure the defect therein. Thus, the combination of the references cannot discloses or suggest the claimed invention in claims 3-5, and 8-10.

Examiner response:

As *Rao* teaches all the limitations in the pending claim 1 as discussed above, the combination of *Rao* and *Rothman* teaches the limitations in claim 3, the combination of *Rao* and *Fichtner* teaches the limitations in claim 4, the combination of *Rao*, and *Parry* teaches the limitations in claims 5 and 8, and the combination of *Rao*, *Parry*, and *Kraft* teaches the limitations in claims 9-10.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136 (a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. /Anna Deng/

14. Primary Examiner, Art Unit 2191Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anna Deng whose telephone number is 571-272-5989. The examiner can normally be reached on Monday to Friday 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Anna Deng/

Primary Examiner, Art Unit 2191

7/9/2009